

# CONDUIT AND CABLE SCHEDULE STAGE II AND III

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**THE PORT AUTHORITY**  
**OF NY & NJ**
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 ENGINEERING PROGRAM MANAGER  
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 CHIEF ELECTRICAL ENGINEER

CONDUIT DESIGNATION	CIRCUIT No.	FROM	TO	SERVICE	CONDUIT NUMBER OF SETS	CONDUIT SIZE	CABLE (PER COT.) OR BUSWAY NUMBER & SIZE	CABLE TYPE	REMARKS	CONDUIT DESIGNATION	CIRCUIT No.	FROM	TO	SERVICE	CONDUIT NUMBER OF SETS	CONDUIT SIZE	CABLE (PER COT.) OR BUSWAY NUMBER & SIZE	CABLE TYPE	REMARKS
MEDIUM VOLTAGE 15KV CABLE (SEE DWG. #E-11, RISER DIAGRAM)										FDR'S - TRANSFER FROM EXIST. SWGR "R" BUS (SEE DWG. #E-12, ONE LINE DIAGRAM)									
PF-A1B	—	EXIST. 15KV SPLICE CABINET	BKR. #HV-B1	13.8KV	1	4"	3-350MCM 1-#1/0	EPR GND.	"Y" SPLICE TO EXISTING RISER CABLE	L-8	1-6	SWGR. BUS #1	PNL. DP-41N	480V /277V	1	3 1/2"	4-500MCM 1-#2/0	XHHW-2 GND.	REMOVE TEMP. FDR. R-8-TEMP INSTALLED IN STAGE I
PF-A1B TEMP	—	BKR. #HV-B1	EXIST. TR-1	13.8KV	1	4"	3-350MCM 1-#1/0	EPR GND.	TEMPORARY FDR.	R-2	1-3	SWGR. BUS #1	C.T. CABINET IN SS-41N	480V	1	3 1/2"	3-500MCM 1-#1/0	XHHW-2 GND.	DAI-ICH KANGYO 49th FL.
PF-A2B	—	EXIST. 15KV SPLICE CABINET	BKR. #HV-B2	13.8KV	1	4"	3-350MCM 1-#1/0	EPR GND.	"Y" SPLICE TO EXISTING RISER CABLE										
PF-A2B TEMP	—	BKR. #HV-B2	EXIST. TR-2	13.8KV	1	4"	3-350MCM 1-#1/0	EPR GND.	TEMPORARY FDR.										
PF-A3B	—	EXIST. 15KV SPLICE CABINET	BKR. #HV-B3	13.8KV	1	4"	3-350MCM 1-#1/0	EPR GND.	"Y" SPLICE TO EXISTING RISER CABLE	FDR'S - TRANSFER FROM EXIST. SWGR BUS "EL" (SEE DWG. #E-12, ONE LINE DIAGRAM)									
PF-A3B TEMP	—	BKR. #HV-B3	EXIST. TR-3	13.8KV	1	4"	3-350MCM 1-#1/0	EPR GND.	TEMPORARY FDR.	R-10	EL-1	SWGR. BUS #EL	EXIST. P.B. #1	480V	1	2 1/2"	3-250MCM 1-#2	XHHW-2 GND.	◇
PF-A4B	—	EXIST. 15KV SPLICE CABINET	BKR. #HV-B4	13.8KV	1	4"	3-350MCM 1-#1/0	EPR GND.	"Y" SPLICE TO EXISTING RISER CABLE	R-11	EL-2	SWGR. BUS #EL	EXIST. P.B. #1	480V	1	3 1/2"	3-500MCM 1-#1/0	XHHW-2 GND.	◇
PF-A4B TEMP	—	BKR. #HV-B4	EXIST. TR-4	13.8KV	1	4"	3-350MCM 1-#1/0	EPR GND.	TEMPORARY FDR.	R-12	EL-3	SWGR. BUS #EL	EXIST. P.B. #1	480V	1	3 1/2"	3-500MCM 1-#1/0	XHHW-2 GND.	◇
FDR'S - TRANSFER FROM EXIST. SWGR "L" BUS (SEE DWG. #E-12, ONE LINE DIAGRAM)										R-13	EL-4	SWGR. BUS #EL	ELEV. DISTRIBUTION PNL. #EL-A42W	480V	2	3"	3-350MCM 1-#2/0	XHHW-2 GND.	VIA P.B. #1
L-1	3-5	SWGR. BUS #3	ATS #41NL	480V	4	3 1/2"	3-500MCM 1-250MCM	XHHW-2 GND.	◇ VIA P.B. #2, USING EXIST. 3 1/2" C. FROM P.B. #2 TO PNL.	EMERG. POWER FDR'S FROM ELEC. CLOSET "C" (SEE DWG. #E-12, ONE LINE DIAGRAM UNLESS OTHERWISE NOTED)									
	—	ATS #41NL	EDP #EL-A41EW-A	480V	4	3 1/2"	3-500MCM 1-250MCM	XHHW-2 GND.		A-2	—	EXIST. POW. CONTR. EPC-41A	ATS-41NL	480V	2	3 1/2"	3-500MCM 1-#2/0	XHHW-2 GND.	VIA P.B. #3
L-3-TEMP	4-6	SWGR. BUS #4	EXISTING TRANSF. #TR-L3	480V	2	3 1/2"	3-500MCM 1-#2/0	XHHW-2 GND.	◇ PROVIDE CABLE LUGS AT SWGR. BREAKER	A-3	—	EXIST. P.B. #1	ATS-41NR	480V	1	2"	3-#3/0 1-#4	XHHW-2 GND.	◇ VIA P.B. #1
L-3	4-1	SWGR. BUS #4	TRANSF. #TR-L3	480V	2	3 1/2"	3-500MCM 1-#2/0	XHHW-2 GND.		E-CP-41-N	—	PANEL #E-41A	P.B. "A"	208V	1	1 1/4"	2 #2 1-#8	XHHW-2 GND.	SEE DWG. #E-93 ONE LINE DIAGRAM & PLAN
L-3	—	CB-L3	EXIST. 1600A BUSWAY	208V /120V	1	—	2000A BUSWAY	3# F.N. GND.	◇	—	—	P.B. "A"	DISC. SW. NORM. & U.P.S.	208V	1	1 1/4"	2 #2 1-#8	XHHW-2 GND.	
L-4a	4-2	SWGR. BUS #4	BUSWAY CAP	480V /277V	1	—	2000A BUSWAY	3# F.N. GND.	◇	UPS-41N	—	U.P.S.	PANEL CP-41N	120V /240V	1	1 1/4"	3 #2 1-#8	XHHW-2 GND.	SEE DWG. #E-103, EXTEND FDR'S. TO TEMP. UPS
L-4b	3-2	SWGR. BUS #3	EXIST. 1600A BUSWAY	480V /277V	1	—	2000A BUSWAY	3# F.N. GND.	◇	—	—	CB-UPS-41A	PULL BOX	120V /240V	1	1 1/4"	3 #2 1-#8	XHHW-2 GND.	
L-7	4-4	SWGR. BUS #4	MCC-MN41L	480V	3	3 1/2"	3-500MCM 1-#3/0	XHHW-2 GND.		CP-41-BP	—	PULL BOX	UPS-SS41N	120V /240V	1	1 1/4"	3 #2 1-#8	XHHW-2 GND.	BY PASS POWER FOR SS41N. UPS SEE DWG. #E-93 & #E-103
R-1-TEMP	3-3	SWGR. BUS #3	EXISTING TRANSF. #TR-R1	480V	2	3 1/2"	3-500MCM 1-#2/0	XHHW-2 GND.	◇ PROVIDE CABLE LUGS AT SWGR. BREAKER	E-SB-NW	—	PANEL #E-41A	PULL BOX	208V /120V	1	2"	3 #4/0 1-#2	XHHW-2 GND.	SEE DWG. #E-93 ONE LINE DIAGRAM & PLAN
FDR'S - TRANSFER FROM EXIST. SWGR "R" BUS (SEE DWG. #E-12, ONE LINE DIAGRAM)										TEMPORARY 480/277V. BUSWAY (SEE DWG. #E-12, ONE LINE DIAGRAM)									
R-1	2-1	SWGR. BUS #2	TRANSF. #TR-R1	480V	2	3 1/2"	3-500MCM 1-#2/0	XHHW-2 GND.		T.B.	1-2	SWGR. BUS #3 4000A 600V BUSWAY	EXIST. COLLECTOR BUSWAY	480V /277V	1	—	4000A BUSWAY	3# F.N. GND.	TEMPORARY BUSWAY
R-1	—	CB-R1	EXIST. 1600A BUSWAY	208V /120V	1	—	2000A BUSWAY	3# F.N. GND.	◇										
R-2a	1-2	SWGR. BUS #1	EXIST. 2000A BUSWAY	480V /277V	1	—	2000A BUSWAY	3# F.N. GND.	◇										
R-2b	2-2	SWGR. BUS #2	EXIST. 1600A BUSWAY	480V /277V	1	—	2000A BUSWAY	3# F.N. GND.	◇										
R-3	2-7	SWGR. BUS #2	EXIST. P.B. #7	480V	1	3 1/2"	3-500MCM 1-#1/0	XHHW-2 GND.	◇ VIA NEW P.B. #6, USING EXIST. 3 1/2" C. & FDR FROM P.B. #6										
R-4	1-4	SWGR. BUS #1	ATS #41NR	480V	4	3"	3-350MCM 1-#3/0	XHHW-2 GND.	◇ RUN FEEDERS BETWEEN EQUIPMENT										I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF ONE OF THE CONTRACT DRAWINGS COM- MITTING A PART OF CONTRACT NO. WTC-802.071 IN THE FORM IN WHICH SAID DRAWINGS EXISTED AT THE TIME THE SAID CONTRACT WAS EXECUTED BY THE PARTIES. DATE 6/24/95 <i>Samir A. Adam</i> SPEC. WRITER DATE 8/15/95 <i>Philip K. Swann</i> ENGINEER OF DESIGN
	—	ATS #41NR	SWGR. BUS #EL	480V	4	3"	3-350MCM 1-#3/0	XHHW-2 GND.											
R-5	2-4	SWGR. BUS #2	MCC-MN41R	480V	3	3 1/2"	3-500MCM 1-#3/0	XHHW-2 GND.	◇										
R-6	2-6	SWGR. BUS #2	EXIST. P.B. #1	480V	1	2 1/2"	3-#4/0 1-#2	XHHW-2 GND.											

- ◇ - REMOVE EXIST. & INSTALL COPPER CABLE LUGS
  - ◇ - SPLICE TO EXIST. AL. CABLE
  - ◇ - CONNECT TO EXIST. AL. BUSWAY
- FOR EXIST. COT. & WIRE SEE DWG #E-109

 Engineering Department  
 Design Divisions  
 The World Trade Center  
 Electrical/HVAC  
 Upgrade Program

 Title  
 TOWER ONE AND TWO  
 LOW VOLTAGE  
 SUBSTATIONS  
 CONSTRUCTION AND  
 INSTALLATION

ELECTRICAL

 SUBSTATION SS-41N  
 STAGE II AND III  
 CONDUIT AND CABLE  
 SCHEDULE

 No. Date Revision Approved  
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 LEAHY/FISCHER LEAHY A.S.  
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